

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 93-R-0482
CUSTOMER NUMBER: 22624

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Kosan Biosciences, Inc.
3832 Bay Center Place
Hayward, CA 94545

Telephone: (510) -732-8400

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, or experimentation, or held for these purposes. Attach additional sheets if necessary)

FACILITY LOCATIONS (Sites) - See Attached Listing

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS Form 7023A)

A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquiliz- ing drugs would have adversely affected the procedures, res- ults or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reason such drugs were not used must be attached to this report)	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs			6	6	12
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits					
9. Non-human Primates					
10. Sheep					
11. Pigs					
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

b6, b7c

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including teaching, testing, surgery, or experimentation were followed by this research facility.
- 2) Each principal investigator has considered alternatives to painful procedures.
- 3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and an Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

SIGNATURE OF CEO OR INSTITUTIONAL OFFICIAL

NAME OF CEO OR INSTITUTIONAL OFFICIAL (Type or Print)

DATE SIGNED

b6, b7c

4/24/03

Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: 93-R-0482 / 22624
2. Number 6 of animals used in this study.
3. Species (common name) dog of animals used in the study.
4. Explain the procedure producing pain and/or distress.

Dogs were involved in noninvasive studies evaluating the effect of novel agents being developed for use as anticancer therapeutics.

The novel chemotherapeutic agents are administered by routine routes of administration (predominantly orally and intravenously, similar to current chemotherapeutics) and clinical signs, hematology and serum chemistries are monitored.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)

The dogs in E category were those that experienced intermittent, mild, short term emesis/diarrhea beginning approximately 3-4 hours post administration of the novel compound. Analgesics, sedatives and/or anesthetics were not administered because they are not routinely used in human cancer patients exhibiting similar clinical signs and would not necessarily reduce or eliminate the emesis/diarrhea, might increase the risk of aspiration pneumonia, and interfere with or adversely affect the interpretation of the research data since one goal of research is to document clinical signs. Similar to human patients, dogs were treated symptomatically with fluids to alleviate any possible dehydration and alternative nutrition to encourage eating and promote digestion.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency _____ CFR _____

AUG 7 2008